

REMARKS/ARGUMENTS

Claims 1, 3-18 and 26-36 are pending in this application. By this Amendment, claims 1, 10, 29 and 32 are amended and claims 33-36 are added. Support for the claims can be found throughout the specification, including the original claims and the drawings. Withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

I. Rejections Under 35 U.S.C. §103(a)

The Office Action rejects claims 1, 3, 4, 6-8 and 26-31 under 35 U.S.C. §103(a) over Irube and Rossi in view of Berstis. The rejection is respectfully traversed.

Independent claim is directed to a mobile terminal. Independent claim 1 recites a camera module connected to a camera installed within the mobile terminal, the camera module configured to perform a converting operation between analog image data and digital image data, and a direction sensor configured to detect compass orientation direction data associated with an image located in a photographing direction of the camera, wherein the direction data is formatted in two bytes, wherein the first byte provides compass heading information and the second byte provides compass bearing information. Independent claim 1 also recites a voice/image communication apparatus configured to multiplex or demultiplex the direction data and at least one of converted voice or image data, a display module configured to display the image from demultiplexed image data and the direction data from the voice/image communication apparatus, wherein the direction data is displayed in the image by the display module, a speaker configured to output voice data demultiplexed by the voice/image

communication apparatus, and a control unit configured to control the codec, camera module, voice/image communication apparatus, and display module, wherein the control unit checks whether a direction displaying mode has been selected and controls the display module to display the demultiplexed image data and the direction data simultaneously when the direction display mode is selected.

Independent claim 29 is also directed to a mobile terminal. Independent claim 29 recites, *inter alia*, a receiving unit configured to receive multiplexed data including image data and compass orientation direction data associated with the image data, wherein the receiving unit receives direction data, voice data and image data in a packetized format, wherein a first portion of the packetized direction data is provided between the packetized voice data and the packetized image data, and a second portion of the packetized direction data is provided between first and second portions of the packetized image data.

Applicant maintains the position set forth in previous replies that Irube, Rossi and Berstis, either alone or in combination, neither disclose nor suggest the features of independent claims 1 and 29, or the respective claimed combinations of features. Additionally, Irube, Rossi and Berstis are all silent as to the means and format by which any type of image data is transmitted, received and/or multiplexed/demultiplexed. Thus, Irube, Rossi and Berstis, either alone or in combination, neither disclose nor suggest the newly added features of independent now recited in independent claims 1 and 29.

More specifically, Irube's camera direction sensor unit 28 senses merely whether or not a camera unit 4 is actually attached to a terminal 1, but does not collect any type of direction data. However, even if Irube's sensor unit 28 were to collect such direction data, Irube is silent as to how, and in what format, the disclosed direction sensor 28 collects and transmits any type of information at all, let alone such direction data. Thus, Irube neither discloses nor suggests a direction sensor that detects compass orientation direction data that is formatted in two bytes, wherein the first byte provides compass heading information and the second byte provides compass bearing information, as recited in independent claim 1. Likewise, Irube neither discloses nor suggests a receiving unit that receives direction data, voice data and image data in a packetized format, wherein a first portion of the packetized direction data is provided between the packetized voice data and the packetized image data, and a second portion of the packetized direction data is provided between first and second portions of the packetized image data, as recited in independent claim 29.

Rossi's object location identification system 10 measures and outputs heading and depression angle data associated with a pointing device 16 to ultimately generate latitude, longitude and altitude data corresponding to the pointing device user's location. As with Irube, Rossi is silent as to how, and in what format, the disclosed location identification system 10 collects and transmits any type of information at all, let alone the claimed direction data. Thus, even a combination of the teachings of Irube and Rossi does not disclose or suggest a direction sensor that detects compass orientation direction data that is formatted in two bytes, wherein the

first byte provides compass heading information and the second byte provides compass bearing information, as recited in independent claim 1, nor a receiving unit that receives direction data, voice data and image data in a packetized format, wherein a first portion of the packetized direction data is provided between the packetized voice data and the packetized image data, and a second portion of the packetized direction data is provided between first and second portions of the packetized image data, as recited in independent claim 29.

Berstis' inertial sensors 16 only collect position information of an object relative to a previously stored reference position of the photographing device 10, which is not necessarily representative of an actual position of a photographed object itself, as the data collected by the inertial sensors 16 only reflects a position of the object relative to a current position of the device 10. Even if this data were to be compass orientation direction data, which it is not, as with Irube and Rossi, Berstis is silent as to how, and in what format, the information is collected and transmitted. Thus, even a combination of the teachings of Irube, Rossi and Berstis does not disclose or suggest a direction sensor that detects compass orientation direction data that is formatted in two bytes, wherein the first byte provides compass heading information and the second byte provides compass bearing information, as recited in independent claim 1, nor a receiving unit that receives direction data, voice data and image data in a packetized format, wherein a first portion of the packetized direction data is provided between the packetized voice data and the packetized image data, and a second portion of the packetized direction data is

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provided between first and second portions of the packetized image data, as recited in independent claim 29.

Accordingly, it is respectfully submitted that independent claims 1 and 29 are allowable over the applied combination, and thus the rejection of independent claims 1 and 29 under 35 U.S.C. §103(a) over Irube, Rossi and Berstis should be withdrawn. Dependent claims 3, 4, 6-8, 26-28, 30 and 31 are allowable at least for the reasons set forth above with respect to independent claims 1 and 29, from which they respectively depend, as well as for their added features.

The Office Action rejects claims 5, 10 and 12-18 under 35 U.S.C. §103(a) over Irube, Rossi and Berstis in view of Rudow. The rejection is respectfully traversed.

Independent claim 10 is directed to a method for displaying image data direction of a mobile terminal. Independent claim 10 recites, *inter alia*, receiving image data, and demultiplexing the image data and separating the image data into at least one of image or voice data and compass orientation direction data, comprising receiving a first byte of compass orientation direction data that provides a compass heading and receiving a second byte of compass orientation direction data that provides a compass bearing.

As set forth above, Irube, Rossi and Berstis, either alone or in combination, neither disclose nor suggest such features. Further, Rudow fails to overcome the deficiencies of Irube, Rossi and Berstis.

Rudow 's display for a golf cart always displays a map, golf cart position and orientation symbol, and yardage to the hole, based on Rossi is completely silent as to how and in what format the golf cart and hole position is collected and transmitted to the cart. Like Irube, Rossi and Berstis, Rudow neither discloses nor suggests a direction sensor that detects compass orientation direction data that is formatted in two bytes, wherein the first byte provides compass heading information and the second byte provides compass bearing information, as recited in independent claim 1, nor a receiving unit that receives direction data, voice data and image data in a packetized format, wherein a first portion of the packetized direction data is provided between the packetized voice data and the packetized image data, and a second portion of the packetized direction data is provided between first and second portions of the packetized image data, as recited in independent claim 29.

Accordingly, it is respectfully submitted that independent claim 10 is allowable over the applied combination, and thus the rejection of independent claim 10 under 35 U.S.C. §103(a) over Irube, Rossi, Berstis and Rudow should be withdrawn. Dependent claims 12-18 are allowable at least for the reasons set forth above with respect to independent claim 10, from which they depend, as well as for their added features. Likewise, dependent claim 5 is allowable at least for the reasons set forth above with respect to independent claim 1, from which it depends, as well as for its added features.

The Office Action rejects claims 9 and 11 under 35 U.S.C. §103(a) over Irube, Rossi and Berstis in view of Takahashi. The rejection is respectfully traversed.

Dependent claims 9 and 11 are allowable over Irube, Rossi and Berstis at least for the reasons set forth above with respect to independent claims 1 and 10, from which they respectively depend, as well as for their added features. Further, Takahashi is merely cited as allegedly teaching the formation of null data sets, and thus fails to overcome the deficiencies of Irube, Rossi and Berstis. Accordingly, it is respectfully submitted that claims 9 and 11 are allowable over the applied combination, and thus the rejection of claims 9 and 11 under 35 U.S.C. §103(a) over Irube, Rossi, Berstis and Takahashi should be withdrawn.

The Office Action rejects claim 32 under 35 U.S.C. §103(a) over Irube, Rossi and Berstis in view of Vance. The rejection is respectfully traversed.

Independent claim 32 is directed to a method of displaying direction information on a screen of a camera phone. Independent claim 32 recites, *inter alia*, collecting data related to an object being photographed, comprising collecting direction data, voice data and image data in a packetized format, wherein a first portion of the packetized direction data is provided between the packetized voice data and the packetized image data, and a second portion of the packetized direction data is provided between first and second portions of the packetized image data.

As set forth above, Irube, Rossi and Berstis, either alone or in combination, neither disclose nor suggest the features of independent claim 32, or the claimed combination of features. Further, Vance is merely cited as allegedly teaching displaying an image on a screen of a camera phone, and thus fails to overcome the deficiencies of Irube, Rossi and Berstis. Accordingly, it is respectfully submitted that independent claim 32 is allowable over the applied

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combination, and thus the rejection of independent claim 32 under 35 U.S.C. §103(a) over Irube, Rossi, Berstis and Vance should be withdrawn.

II. New Claims

New claims 33-36 are added to the application. It is respectfully submitted that new claims 33-36 meet the requirements of 35 U.S.C. §112, and are allowable over the applied prior art references at least for the reasons set forth above with respect to independent claims 1, 10, 29 and 32, from which they respectively depend, as well as for their added features.

III. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, Joanna K. Mason, at the telephone number listed below.

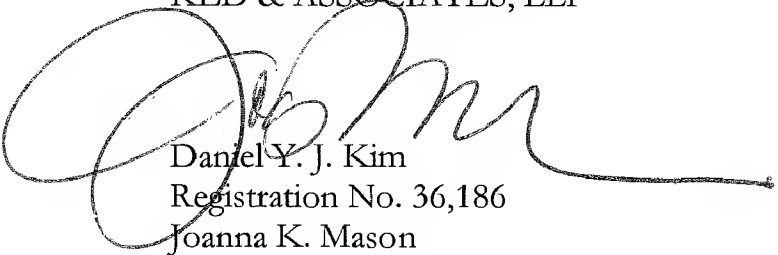
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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
KED & ASSOCIATES, LLP



Daniel Y. J. Kim
Registration No. 36,186
Joanna K. Mason
Registration No. 56,408

P.O. Box 221200
Chantilly, Virginia 20153-1200
(703) 766-3777
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Please direct all correspondence to Customer Number 34610